CP-10
Front Panel
Operation

900-843 9/19/03

Contents

Chapter 1 – Introduction to the CP-10

Keys and Functions 1-2
Checking Software Version 1-5
Technical Support 1-5

Chapter 2 – Executing Switches

Chapter 3 – Verifying Signal Status

Verifying Input Status 3-1
Verifying Output Status 3-3

Chapter 4 – Executing Presets

Local Presets 4-1
Global Presets 4-3

Chapter 5 – Installing a Remote CP-10

Rack Installation 5-2
Connecting Power 5-3
Connecting to the System 5-4

Index

Introduction to the CP-10

An AutoPatch Distribution Matrix is composed of one or more enclosures. Enclosures are the structural basis of a matrix switcher. Since AutoPatch Distribution Matrices are custom built for each installation, factors such as control method and signal types affect the appearance and weight of each enclosure.

An enclosure may have either a blank front panel or one of various control panels (local front or remote panels produced by AutoPatch for controlling the system's switches and system attributes). Although control panels are optional, we recommend one per system for system verification, redundant control, and troubleshooting. Local control panels can be removed or attached as needed; note, however, that the enclosure's power *must* be off during removal and installation of a front panel.

This chapter describes the CP-10 Control Panel and its basic functions.

Keys and Functions

A CP-10 Control Panel has 29 keys. The keys include 10 number keys for entering digits, 4 directional arrow keys, and 1 each of the following: Cancel, Take, Status, Level, Change, Input, Output, Preset, Program, Backlight, Undo, and Space. The Special, Comma, and Period keys are currently not implemented. If your system contains audio boards with the volume and input gain control option, they can be adjusted using BCS commands (see the *Serial Control Operation* section of this binder).

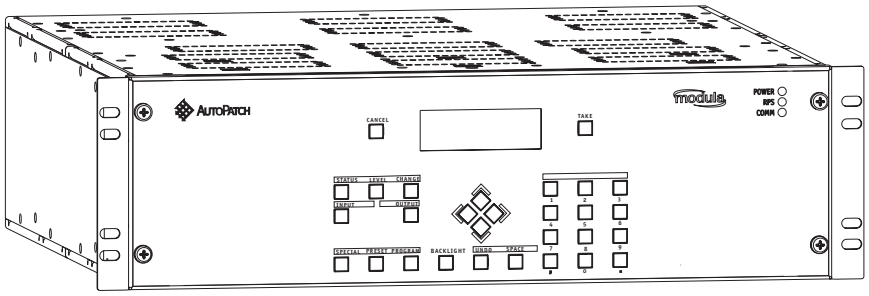


Figure 1: Front view of a Modula enclosure with a CP-10 Control Panel

The keys on the CP-10 are used to choose commands and to enter values in the fields displayed on the LCD Command screen.

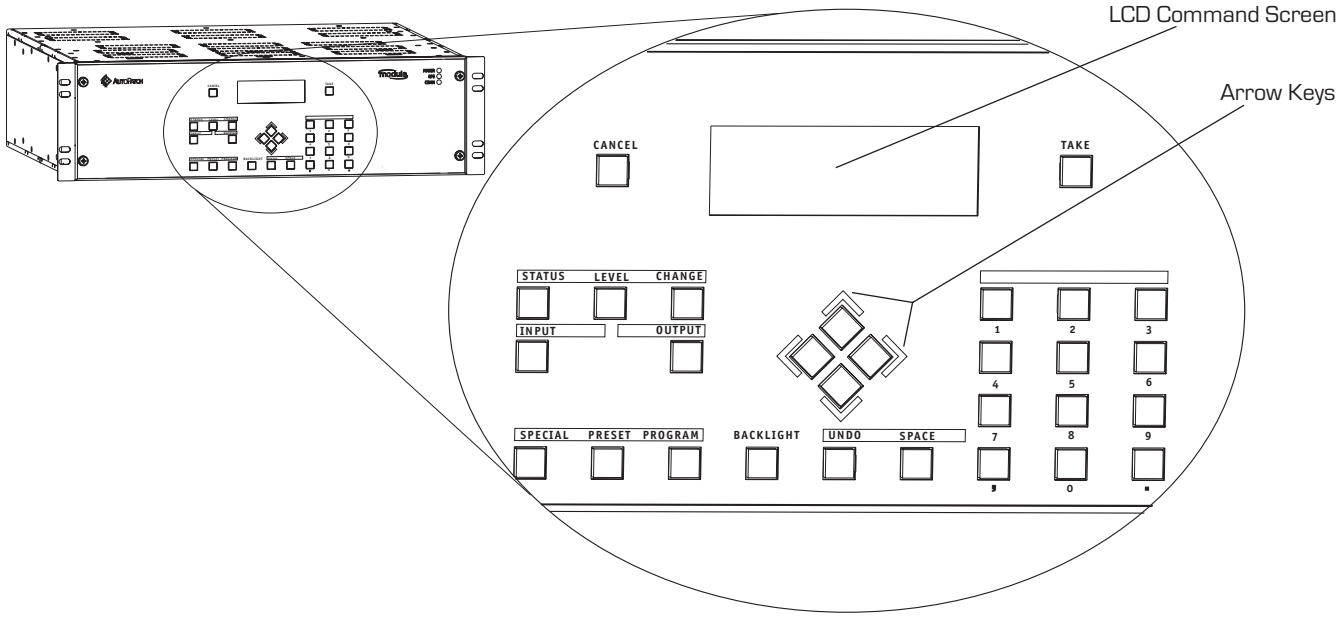


Figure 2: Close up view of a CP-10 Control Panel

Number Keys (0-9)

Use the number keys to enter level, input, output, and preset numbers, and to enter digits for any other functions that may require numbers.

Arrow Keys

Use the arrow keys to scroll left and right through long lists of outputs. The arrow keys are required only when an arrow graphic is displayed on the LCD Command screen.

Cancel Key

Use the Cancel key to abort a command that is incomplete. If you make a mistake while entering a command, press the Cancel key to return to the Command screen and start over. The Cancel key *cannot* undo a completed operation.

Take Key

The Take key is much like the Enter or Return key on a computer keyboard. Pressing the Take key tells the system to execute the selected or entered command.

Status Key

Use the Status key to query the system for signal routing information and switch verification. See page 3-1 for more information on status operations.

Level Key

The Level key prepares the system to receive a level identification number as the next entry.

Change Key

Use the Change key to switch signals. Press the Change key and the Change menu appears, prompting you for information about the switch you want to perform. See page 2-1 for more information on executing switches.

Input Key

The Input key prepares the system to receive an input (source) identification number as the next entry.

Output Key

The Output key prepares the system to receive an output (destination) identification number as the next entry.

Preset Key

Use the Preset key to implement local and global presets. See page 4-1 for information on executing local presets. See page 4-3 for information on programing and executing global presets.

Program Key

Use the Program key to access software version information.

Backlight Key

The Backlight key illuminates the LCD. The backlight remains illuminated for approximately 20 seconds; however, you can turn it off before the 20 seconds are over by pressing the key again.

Undo Key

Use the Undo key to return to the Command screen without executing a command. The Undo key *cannot* undo a completed operation.

Space Key

Use the Space key to insert a space between multiple outputs or multiple local presets when entering a command; the output and local preset prompts are the only prompts that accept multiple entries.

Special, Comma (,), and Period (.) Keys

These keys are not implemented at this time.

The CP-10 Control Panel operations combine the following three basic tasks:

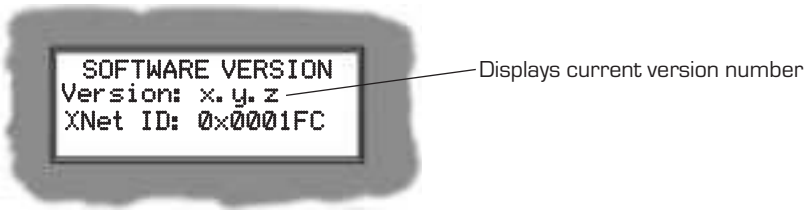
- **To choose a command,** press the key that corresponds with the command you want to choose.
- **To select values for fields (such as level, input, output, and preset values)**, use the number keys.
- **To execute a command**, press the Take key.

Checking Software Version

Use the following steps to check the software version of the CP-10.

To check the software version:

1. At the Command screen, press the Program key.
   The Software Version screen appears.



2. Press the Cancel key to return to the Command screen.

Technical Support

AutoPatch provides technical support 24 hours a day, 7 days a week (except for U.S. holidays). Before calling technical support with a question, please review the information in this binder. If this binder cannot fully answer your question, *have your serial number ready* (for serial number location see Chapter 1 in the *Installation & Setup* section of this binder) and call your authorized AutoPatch dealer or call AutoPatch AutoAssist at: U.S. and Canada **800-622-0246** (toll free) or International **509-235-2636**. You can also reach us through our web site: **www.autopatch.com**, or e-mail our AutoPatch Technical Support Specialists at: **support@autopatch.com**

AUTOASSIST
24hrs / 800-622-0246

Executing Switches

A switch is an active connection between a source (input) signal and one or more destination (output) devices. The signals connected in a switch command are individual signals or groups of signals coming through the connectors on the rear of the enclosure. When executing a switch, you must specify a level that has all the signals you want to route. Level definitions reside in the configuration information in each enclosure's CPU.

You can execute switches from the CP-10 Control Panel by using the steps on the following pages or by executing a preset. For information on presets, see page 4-1.

You can return to the Command screen at any time by pressing the Cancel key.

The following example switches input 2 to output 3 on level 0.

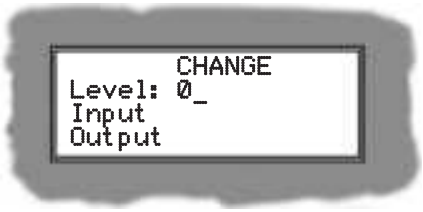
Note: In each switch command, you can enter multiple output signals, but only one input signal and only one level.

To execute a switch:

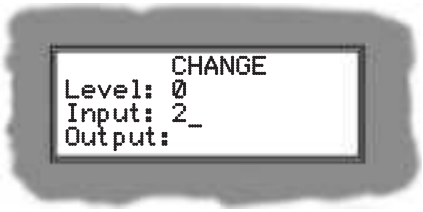
1. At the Command screen, press the Change key.

The Change screen appears.

2. Press the Level key and enter “0”.



3. Press the Input key and enter “2”.



4. Press the Output key and enter “3”.

If, at any time, you enter an incorrect number or decide not to execute the switch, press the Cancel key to return to the Command screen.

5. Press the Take key.
The input is routed to the specified output(s) and the Command screen appears.

Note: If you want to switch an input to a large group of outputs, enter no more than 33 outputs at a time and be sure to press the Space key between each output. Use the left and right arrow keys to navigate through the entries.

Verifying Signal Status

Signal status verification can be executed to confirm that the switch has executed properly or to confirm the correct routing of a source (input) to multiple destinations (outputs). A destination can only be connected to one source; therefore, verifying the status of a destination will display only the one source it is currently connected to.

You can verify switches from the CP-10 by using the steps on the following pages.

Return to the Command screen at any time by pressing the Cancel key.

The example below verifies signal status for input 2 on level 0.
The example on page 3-3 verifies signal status for output 9 on level 0.

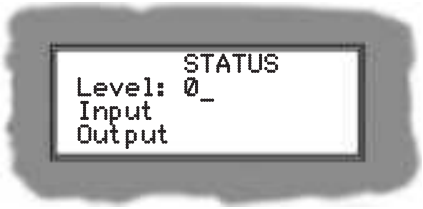
Verifying Input Status

To verify input signal status:

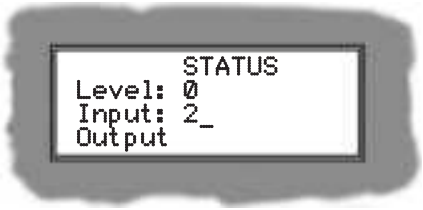
1. At the Command screen, press the Status key.

The Status screen appears.

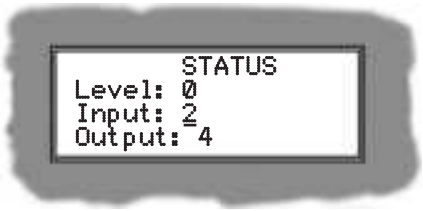
2. Press the Level key and enter “0”.



3. Press the Input key and enter “2”.



4. Press the Take key.
   The output status for input 2 is displayed.



   Multiple outputs may also be displayed (for an example of a screen displaying multiple outputs, see Figure 3).

Note: If there are no outputs routed to the selected input, “DIS” (disconnect) appears in the Output field.

5. Press the Status key to return to the Status screen to verify additional signals.
   Or press the Cancel key to return to the Command screen.

Repeat this procedure for each signal status you want to verify.

Multiple Output Display

The screen below illustrates a multiple output display. When there is not enough room on the screen to show all the outputs that the input is routed to, use the right arrow key to scroll right and see the rest of the outputs.

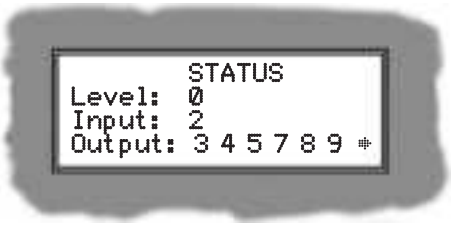


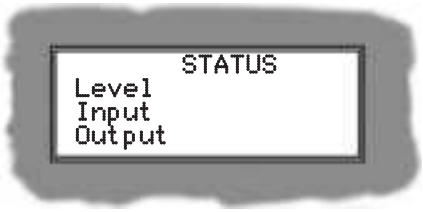
Figure 3: Use the right arrow key to display additional outputs

Verifying Output Status

To verify output signal status:

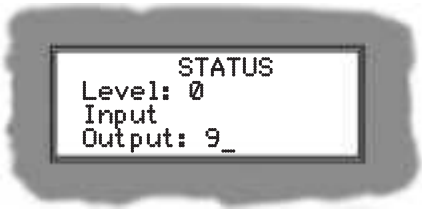
1. At the Command screen, press the Status key.

The Status screen appears.

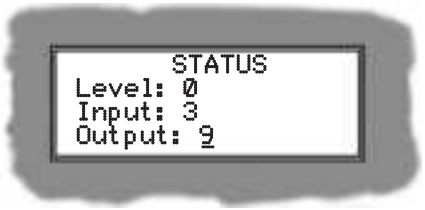


2. Press the Level key and enter “0”.

3. Press the Output key, and enter “9”.



4. Press the Take key.
   The input status for output 9 is displayed.



Note: If there are no inputs routed to the selected output, “DIS” (disconnect) appears in the Input field.

5. Press the Status key to return to the Status screen to verify additional signals.
   Or press the Cancel key to return to the Command screen.

Repeat this procedure for each signal status you want to verify.

Executing Presets

You can execute local and global presets from a CP-10 Control Panel using the steps on the following pages.

Local Presets

A local preset is a set of switches stored in each enclosure's configuration information. You can execute local presets on your system at any time using the CP-10 Control Panel. Local presets are not programmed when your system is shipped. To program local presets, use the X^NConnect software located on the AutoPatch CD ROM in the front pocket of this binder, or contact your AutoPatch dealer.

Multiple local presets can be executed simultaneously using the CP-10 Control Panel. Be sure to press the Space key between each preset.

You can return to the Command screen at any time by pressing the Cancel key.

The following steps execute local preset 6 on level 0.

Note: When you execute a local preset, the system routes the switches immediately.

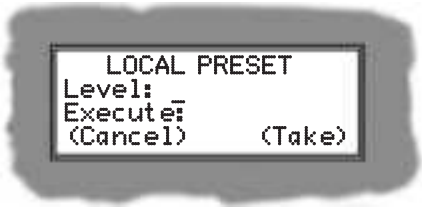
To execute a local preset:

1. At the Command screen, press the Preset key.

The Global Preset screen appears.

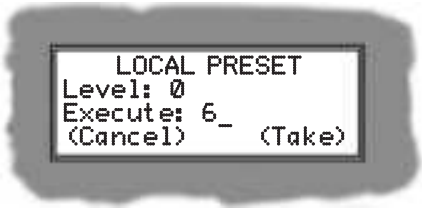
2. Press the Level key to access the Local Preset screen.

The Local Preset screen appears with the cursor after the Level prompt.



3. Enter “0” for the level.

4. Press the Preset key again and enter “6”.



If you need to execute multiple presets, separate them with a space by pressing the Space key.

Caution: Make sure all the presets are in the same level when selecting multiple presets.

If you enter an incorrect number or decide not to execute the preset, press the Cancel key to return to the Command screen.

5. Press the Take key.
The local preset 6 is executed and the Command screen appears.

Global Presets

A global preset is a stored given state of the entire system (e.g., all routings on a three enclosure system) which has been defined (programmed) by assigning the state a number. That system state can then be restored at any time by executing a global preset command using the assigned number. Global presets cannot be defined in X^NConnect.

You can return to the Command screen at any time by pressing the Cancel key.

The following two sets of steps program a system state as global preset 3 and then execute the same preset.

Note: When you execute a global preset, the system routes the switches immediately.

To program a global preset:

1. Route the system to the state that you wish to recall as a preset.
2. At the Command screen, press the Preset key.

The Global Preset screen appears.

3. Press the Preset key again.

The Program prompt appears with the cursor after the prompt.

Note: From the Global Preset screen, press the Preset key to toggle between the Program prompt and the Execute prompt.

4. Enter "3" as the number to be associated with the current system state.

If you enter an incorrect number or decide not to program the preset, press the Cancel key to return to the Command screen.

5. Press the Take key.
   Global Preset 3 is programed and the Command screen appears.

Note: We strongly recommend keeping track of the numbers and system state routings used for global presets. If another system state is assigned to a previously used number, the former state will be automatically overwritten.

To execute a global preset:

1. At the Command screen, press the Preset key.

   The Global Preset screen appears with the cursor after the Execute prompt.

2. Enter “3”.

   If you enter an incorrect number or decide not to execute the preset, press the Cancel key to return to the Command screen.

3. Press the Take key.
   The global preset 3 is executed and the Command screen appears.

Installing a Remote CP-10

This chapter covers steps for installing and wiring a Remote CP-10 Control Panel (X/Y Controller) in a rack.

Each remote panel order comes with the following items in the shipping box:

- Remote CP-10 Control Panel
- X^NNet cable and connector kit (custom option)
- Wall transformer (optional)

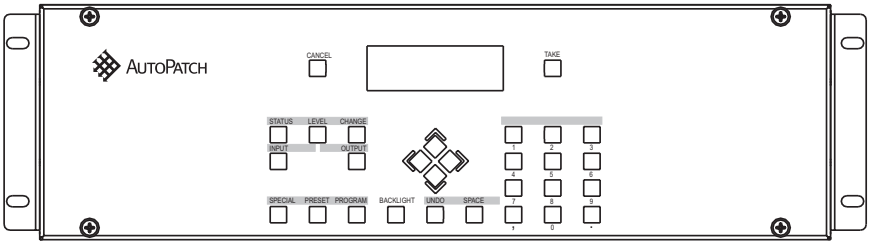


Figure 4: Front view of a Remote CP-10 Controller

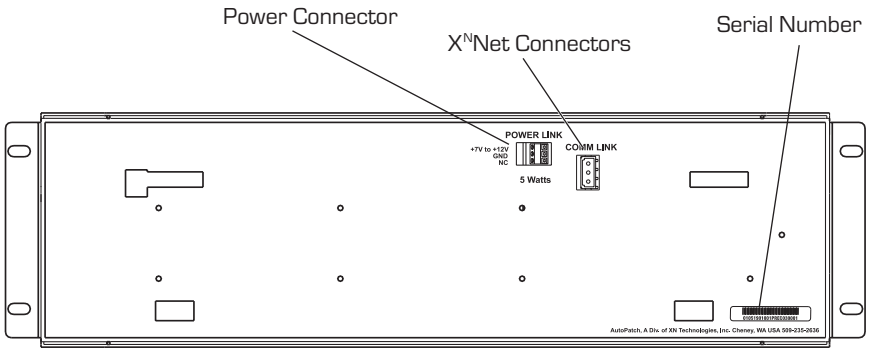


Figure 5: Rear view of a Remote CP-10 Controller

Rack Installation

Remote CP-10 Control Panels are designed to fit in a standard EIA 19 in. (48.26 cm) rack.

Note: For ease of use, mount the controller in the rack at eye level. Viewing the screen at extreme angles makes it hard to see the screen messages; the optimum viewing angle for the LCD screen is +15º.

To install a Remote CP-10 Control Panel in a rack: Place the Remote CP-10 Control Panel in the rack and attach with front mounting screws to hold it firmly in place.

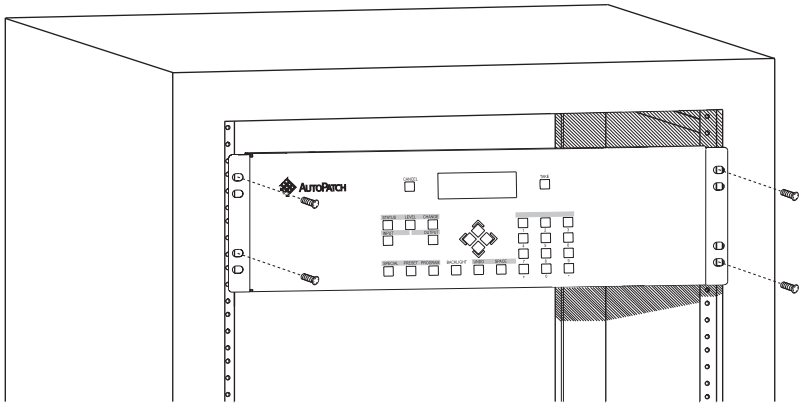


Figure 6: Place in the rack and fasten with mounting screws

Connecting Power

The power connector is the left connector on the rear of the Remote CP-10 Control Panel. Acceptable power for the controller is +7 to +12 VDC @ 500 mA.

To connect power to the CP-10 Control Panel: Connect the power wires to the power connector by loosening the ground and positive screws, inserting the ground and positive wires (see Figure 7), and tightening the screws.

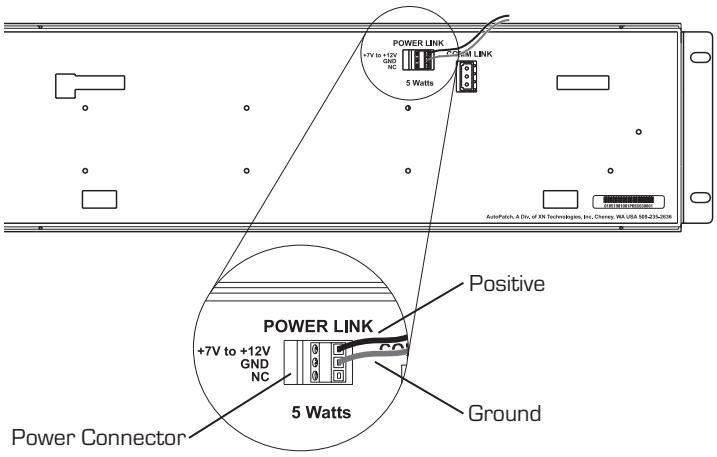


Figure 7: Loosen screws and insert wires

Note: If you use the (optional) wall transformer, the side of the wire with the white stripe is positive and the other side is the ground.

Connecting to the System

The X^{N}Net Connector is the connector to the right on the rear of the Remote CP-10 Controller.

To connect the CP-10 Control Panel to the system:

1. Unplug the X^{N}Net Connector on the panel (see Figure 8) to make wiring easier (this step is optional).
2. Connect the X^{N}Net Linking Cable to the X^{N}Net Connector by loosening the top and bottom screws, inserting the wires (either wire can be inserted in the top or the bottom slot of the X^{N}Net Connector; be sure to leave the center slot empty), and tightening the screws.

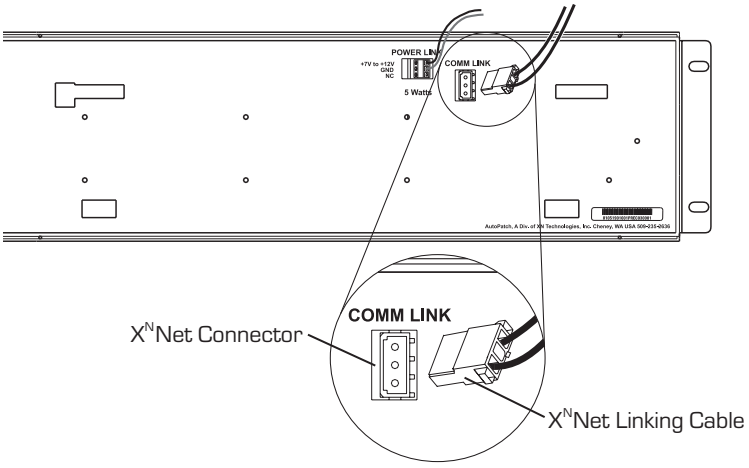


Figure 8: Plug the X^{N}Net linking cable into the X^{N}Net connector

3. Plug the X^{N}Net connector back into the panel.
4. Connect the other ends of the X^{N}Net Linking Cable into the corresponding X^{N}Net Connector (Comm Link) on your matrix switcher enclosure. These wire ends *must* be inserted in the same positions (i.e., top to top) as they are in the X^{N}Net Connector on the remote panel.
5. Perform a test switch to ensure the panel and the matrix switcher are working properly (see Chapter 2).

Index

A

arrow keys
- function 1-3
- *illus.* 1-2

AutoAssist 1-5

B

Backlight key
- function 1-4
- *illus.* 1-2

BCS (Basic Control Structure) 1-2

buttons
- *see* key functions

C

Cancel key
- function 1-3
- *illus.* 1-2

Caution
- multiple presets 4-3

Change key
- function 1-3
- *illus.* 1-2

checking software version 1-5

checking status
- *see* verifying signal status

Command screen
- *see* LCD screen

connecting, remote
- to power 5-3
- to system 5-4

CP-10 Control Panel
- directions for using 1-4
- *illus.* 1-2
- key functions 1-3 to 1-4
- remote 5-1 to 5-4

D

defining global presets 4-4

E

e-mail, technical support 1-5

executing global presets 4-5

executing local presets 4-2

executing switches 2-1

F

front of CP-10 remote *illus.* 5-1

front of enclosure, CP-10 *illus.* 1-2

G

global presets
- defining 4-4
- executing 4-5

I

Input key
- function 1-3
- *illus.* 1-2

input, verifying status 3-1

installing, CP-10 remote 5-2

K

key functions 1-3

L

LCD screen

- Backlight key 1-4
- *illus.* 1-2

Level key

- function 1-3
- *illus.* 1-2
- presets 4-2

local presets

- *Caution* 4-3
- executing 4-2
- programming 4-1

M

macro

- *see* local presets

N

number keys

- function 1-3
- *illus.* 1-2

O

Output key

- function 1-3
- *illus.* 1-2

output, verifying status 3-3

P

Period (.) key 1-4

Preset key

- function 1-4
- *illus.* 1-2

Program key

- function 1-4
- *illus.* 1-2

programming presets

- global 4-3
- local 4-1

R

remote CP-10

- connecting power 5-3
- connecting to system 5-4
- front *illus.* 5-1
- installing 5-2
- rear *illus.* 5-1

S

serial number 1-5

serial number, remote *illus.* 5-1

signal status

- *see* verifying signal status

software, checking version 1-5

Space key

- function 1-4
- *illus.* 1-2

Special key 1-4

Status key

- function 1-3
- *illus.* 1-2

switch

- *see* executing switches

T

Take key

- function 1-3
- *illus.* 1-2

technical support 1-5

U

Undo key

- function 1-4
- *illus.* 1-2

V

verifying signal status

- input 3-1
- output 3-4

version, checking software 1-5

volume, BCS 1-2

W

wall transformer 5-3

web site 1-5

X

X^NConnect 4-1

X^NNet

connectors 5-4

linking cable 5-4